



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

m/

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,644	11/21/2003	Kunio Yoneno	244896US2CONT	9150
22850 7590 02/15/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER SHERMAN, STEPHEN G	
			ART UNIT 2629	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	02/15/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/15/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary

Application No.

10/717,644

Applicant(s)

YONENO, KUNIO

Examiner

Stephen G. Sherman

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27, 46 and 69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 69 is/are allowed.
- 6) ☒ Claim(s) 27 and 46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 08/804,069.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is in response to the amendment filed the 6 September 2006. Claims 27, 46 and 69 are pending. Claims 1-26, 28-45 and 47-68 remain cancelled.

Response to Arguments

2. Applicant's arguments with respect to claims 27 and 46 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 27 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onagawa (US 5,657,089) in view of Yoshioka (US 4,998,169) and further in view of Cappels, Sr. (US 5,731,843).

Regarding claim 27, Onagawa discloses a method of adjusting a frequency of a dot clock signal (Figure 3 and column 3, lines 25-45 explain the sampling clock, i.e. dot clock signal.) for a video signal, said method comprising:

(a) generating a first dot clock based on a horizontal synchronizing frequency signal of said video signal and a first factor (Figure 3 and Column 5, lines 43-63, where the frequency dividing ration is considered as the first factor, and the sampling clock that is generated from the VCO 6 output is considered as the dot clock signal.);

(b) sampling said video signal by said first dot clock signal to obtain image data (Column 5, lines 19-21 explain that the A/D samples the video signal by the sampling clock.);

(c) obtaining a number of beats caused by a difference between a desirable frequency and the actual frequency of the first dot clock signal over one line of said image data (Column 4, lines 54-63, column 5, lines 27-35 and column 6, lines 9-17 explain that the counter 22 outputs a count, i.e. number of beats, indicative of the number of pixels in an effective video interval, i.e. one line of image data, and the effective video internal detector 2 detects the effective video interval and outputs a differential data indicative of the difference between the detected effective video

interval, i.e. actual frequency, and a required video data interval, i.e. desirable frequency.);

(d) correcting said first factor with said number of beats, thereby obtaining a second factor (Column 6, lines 53-65 where the desired adjusted frequency-dividing ration is considered as the second factor.); and

(e) generating a second dot clock signal based on said horizontal synchronizing signal and said second factor (Column 6, lines 64 to column 7, line 7 and column 5, lines 43-53 which describe that a previous frequency-dividing ratio represented data is being applied to generate a re-adjusted frequency dividing ratio, i.e. second factor, where the sampling clock is in synchronism with the horizontal synchronizing signal.).

Onagawa fails to teach that the first factor represents a ration of a frequency of the first dot clock signal to a frequency of the horizontal synchronizing signal.

Yoshioka discloses of a scanning display with a dot clock, wherein a first factor used for generating a dot clock represents a ratio of a frequency of the dot clock to a frequency of a horizontal synchronizing signal (Column 1, line 59 to column 2, line 2 explains that the sampling clock is divided in frequency by a factor of $1/800$, and further the factor defines to be correlated to the horizontal synchronization signal as 800 times the period of the dot clock pulse period.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the teaching of the factor in ration of frequency of the first dot clock to the horizontal synchronizing signal as taught by Yoshioka with the method of adjusting the frequency of a dot clock signal taught by Onagawa in order to

provide a video signal supplying device which is capable of supplying video data while adjusting a horizontal video data interval for sampling a video signal so as to match an effective video interval, while also creating signals that are synchronized with an external signal.

While Onagawa et al. disclose low-pass filter (LPF) 104 in Figure 3, Onagawa et al. and Yoshioka et al. fail to explicitly teach of the beats being a low frequency component of the image data over one line of the image data.

Cappels, Sr. disclose a method for adjusting a frequency of a dot clock signal where the beats are a low frequency component of the image data over one line of the image data and are determined by a difference between a desirable frequency and the actual frequency of a dot clock (Column 6, lines 14-31 explain that the beat is the difference of two frequencies, and give an example where the difference between a 30.1 MHz signal and a 30 MHz signal is .1 MHz, i.e. a low frequency component.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made that the beats as taught by the combination of Onagawa et al. and Yoshioka et al. would be a low frequency component of the image data as taught by Cappels, Sr. in order to provide a clear, noise-free image on a display.

Regarding claim 46, please refer to the rejection of claim 27 where the examiner understands that if Onagawa is able to perform the method of adjusting a frequency of a dot clock, then Onagawa also has means for doing so.

Allowable Subject Matter

6. Claim 69 is allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

Claim 69 is indicated allowable due to the recitation of the specific method of adjusting the frequency of a dot clock, in which the steps for carrying out a correlation analysis on the image data is specifically claimed, as with all of the other imitations added together in the claim, which are not found singularly or in combination within the prior art.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen G. Sherman whose telephone number is (571) 272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SS

9 February 2007

AMR A. AWAD
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read 'Amr A. Awad', followed by a large, sweeping horizontal stroke that extends to the right.